Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of the Commission's Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service	)	IB Docket No. 06-160
	)	
	)	

COMMENTS OF ECHOSTAR SATELLITE OPERATING CORPORATION AND DISH NETWORK L.L.C.

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EchoStar Satellite Operating Corporation ("EchoStar") and DISH Network L.L.C. ("DISH") (together "the Commenters") hereby respond to the Federal Communications Commission's ("Commission" or "FCC") Second Notice of Proposed Rulemaking ("NPRM") which seeks to update the rules that govern Direct Broadcast Satellite Service ("DBS") operations.[1]

The Commenters support the FCC's goal of revising and modernizing the DBS rules to better reflect today's industry. The FCC's Part 25 rules for space stations have evolved dramatically in the past 12 years. The Commission has streamlined the rules in light of changes to the satellite industry and to facilitate innovations in satellite design and operations.[2] It is time to update the DBS rules to reflect the current state of the satellite industry and DBS operations.

[1] *Amendment of the Commission's Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service*, Second Notice of Proposed Rulemaking, FCC 18-157 (Nov. 13, 2018) ("NPRM").

[2] *See e.g. Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 7809 (2017); Comprehensive *Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, 30 FCC Rcd 14713 (2015) ("*Part 25 Streamlining Order*").

I. INTRODUCTION AND SUMMARY

Today, DISH and EchoStar operate as separate publicly-traded companies and EchoStar provides the majority of satellite transponder capacity to DISH. EchoStar began providing DBS service to the United States in 1996 with one satellite at the 119° W.L. orbital location. In January 2008, the company's technology and set-top box business and certain infrastructure were spun off into a separate publicly-traded company, EchoStar Corporation,[3] with DISH continuing to provide DBS service. DISH provides its DBS service with satellites that operate at U.S. DBS orbital slots as well as Canadian and Mexican slots. DISH holds the authorizations for five DBS satellites, leases DBS capacity from EchoStar satellites, and leases additional capacity from a third parties to provide its service.

The existing Part 25 rules that apply to geostationary orbit ("GSO") Fixed Satellite Service ("FSS") satellites should be extended to DBS operations subject to a few modifications that acknowledge the differences between the two services. The Commission has streamlined the Part 25 rules for satellite operations over the last several years,[4] and many of the same rules could be extended to DBS operations. In particular, the first-come, first-served GSO application review process and the fifteen-year license term should be applied.

The GSO milestone requirements should also be extended to DBS systems as GSO systems, but without the surety bond requirement. The Commission should instead adopt a rule allowing submission of a corporate guarantee as an alternative.

To facilitate applications for DBS systems in the United States and international coordination, the Commission should act on U.S. market access requests for DBS operations as they are filed provided they are consistent with the Commission's rules. This will prove far

[3] DISH Network Corp., Annual Report (Form 10-K) (Feb. 13, 2019).

[4] *See Part 25 Streamlining Order*, 30 FCC Rcd 14713.

more efficient than deferring the processing when the application is mutually exclusive with a prior U.S. application filing.

Finally, DBS satellites should be permitted to operate in orbital slots with less than 9-degree orbital spacing provided these "tweener" applicants conduct a MSPACE interference analysis and obtain the consent of existing DBS operators with satellites located less than nine degrees away in the orbital arc. The Commission should also seek comment on adopting and aggregate interference limit in order to protect operational DBS systems and MVDDS licensees from tweener DBS operations.

II. THE COMMISSION SHOULD APPLY EXISTING PART 25 RULES TO DBS OPERATIONS

A. The Commission Should Apply the First-Come, First-Served Authorization Process to DBS Systems, Subject to One Limited Exception

The Commission should streamline the authorization process for DBS operators and allow DBS licenses to be issued consistent with the Commission's existing first-come, first-served processing rules for GSO-like applications.[5] While an auction would be a preferable means of assigning DBS licenses,[6] the first-come, first-served licensing framework can adequately facilitate issuance of DBS licenses and enable non-U.S.-licensed DBS operators' access to the U.S. market. The Commission remains constrained by the *Northpoint* decision which held that the Open-market Reorganization for the Betterment of International Telecommunications ("ORBIT") Act prohibited the auction of DBS licenses.[7]

The FCC should nonetheless establish a limited exception to the first-come, first-served proposal as it applies to DBS operations. For the unassigned Channels 1 and 2 at 61.5 W.L., the

[5] NPRM ¶¶ 9-11 (citing 47 C.F.R. § 25.158).

[6] Comments of EchoStar Satellite L.L.C., IB Docket No. 06-160 at 4 (Dec. 12. 2006) ("EchoStar 2006 Comments")

[7] NPRM ¶ 5 (citing *Northpoint Technology, Ltd. v. FCC*, 412 F.3d 145 (D.C. Cir. 2005)).

Commission should provide the existing operator with the opportunity to add the unassigned channels to its space station authorization for the remainder of the existing license term instead of opening operations on these channels to future requests to provide DBS service.

This limited exception for these two channels will provide service continuity based upon nearly a decade of service to customers under special temporary authority (STA). Existing DBS authorizations allow EchoStar to operate several of its satellites at the 61.5° W.L. orbital location on Channels 3-32 while Channels 1 and 2 remain unassigned. The Commission has authorized EchoStar to operate on Channels 1 and 2 on a non-interference basis pursuant to STA for years.[8] These channels are currently unassigned based on a fifteen year old policy designed to preclude DBS operators that held full-CONUS orbital slots from participating in the 2004 DBS auction.[9] As a result, Rainbow DBS Company, LLC ("Rainbow") won the two DBS channels at auction. However, Rainbow exited the DBS business shortly after launching its first satellite and assigned its authority to operate a DBS space station at the 61.5° W.L. orbital location to EchoStar.[10] EchoStar and Rainbow subsequently encouraged the Commission to eliminate the eligibility restrictions for the two channels at 61.5° W.L.[11] Considering that EchoStar has been operating consistently in the unassigned channels at 61.5° W.L. since 2010, the Commission should

[8] *EchoStar Satellite Operating Corp. Applications for Special Temporary Authority to Operate Direct Broadcast Satellite Service Space Stations EchoStar 3, EchoStar 12, EchoStar 15, and EchoStar 16 on Channels 1and 2 at the 61.5° W.L. Orbital Location*, Order and Authorization, 27 FCC Rcd 7138, 7141-42, ¶ 11 (IB Sat. Div. 2012). These grants were conditioned on the outcome of rules adopted in the present proceeding.

[9] *Auction of Direct Broadcast Satellite Licenses*, Order, 19 FCC Rcd 23849, 23856 ¶ 17 (2004).

[10] *See Rainbow DBS Co., LLC and EchoStar Satellite L.L.C.*, Memorandum Opinion and Order, 20 FCC Rcd 16868 (2005).

[11] Reply Comments of EchoStar, IB Docket No. 06-160, at 18-19 (Jan. 25, 2007); EchoStar Satellite LLC Petition for Reconsideration, WT Docket No. 05-251, at 2 (May 20, 2005) ("EchoStar PFR") (filed in Auction AUC-03-52). Cablevision and Rainbow DBS informed EchoStar that they did not oppose the elimination of these eligibility restrictions. EchoStar PFR at 2 n.4.

provide EchoStar with the opportunity to apply for permanent authority to operate in Channels 1 and 2 before opening them up to a first-come, first served process.

B. The Commission Should Adopt an Aggregate Interference Level to Ensure that Existing and New DBS Operators can Coexist

The addition of new DBS systems has the potential to increase aggregate interference and an increase in the noise floor. To address this issue, the Commission should adopt its proposal to apply the Appendix 30 and 30A ITU interference criteria to all DBS operators.[12] In the event that a new DBS operator's planned operations will exceed the ITU interference criteria and/or interfere with existing DBS operators or an operator with a higher priority ITU filing, the new operator should only be considered compatible with operational DBS system(s) if it coordinates with the system(s) operator and submits a letter from the affected operator consenting to the new application. In addition, the Commission should seek comment as part of this proceeding on an appropriate aggregate interference limit in order to protect incumbent services including DBS and MVDDS.

C. The Commission Should Retain Existing DBS Filing Requirements

Consistent with the Commission's proposal to process new DBS service applications pursuant to the first-come, first-served processing procedure, the Commission should apply certain streamlined procedures that were adopted in the 2015 Part 25 Streamlining Order.[13] In particular, the Commission should extend to DBS the existing Part 25 provisions that determine whether a satellite application is acceptable for filing,[14] but should leave unchanged the existing DBS-specific technical requirements.[15] First, the requirements of Section 25.112 should be

[12] NPRM ¶¶ 29-31.

[13] *See Part 25 Streamlining Order,* 30 FCC Rcd 14713.

[14] 47 C.F.R. § 25.112.

[15] *Id.* § 25.114(d)(11), (13).

extended to DBS operations to ensure that the same rules for dismissal of applications apply consistently to different satellite services.[16] Second, the FCC should retain the DBS-specific requirements in Section 25.114 and require applicants seeking U.S. market access to comply with those requirements.[17] In particular, Section 25.114 requires DBS applicants to state: (1) whether the space station is to be operated on a broadcast or non-broadcast basis; and (2) information and analyses in the event that the technical characteristics of the proposed system differ from those in the Appendix 30 BSS Plans, the Appendix 30A feeder link Plans, Annex 5 to Appendix 30 or Annex 3 to Appendix 30A of the ITU Radio Regulations. Although DBS operations are similar to GSO FSS, the technical particulars of DBS operations are sufficiently different to merit the continued application of the existing Section 25.114 requirements.

D. DBS Satellite Licenses Should Be Subject to a Fifteen Year Term

DBS operators should be subject to a fifteen year license term for DBS operations.[18] As EchoStar stated previously, "[t]he useful life of modern DBS satellites typically exceeds 10 years and is comparable to the useful lives of modern FSS satellites."[19] Since its 2006 comments, EchoStar has obtained extensions for its DBS licenses. For example, EchoStar 6 was launched in 2000, was granted authority to extend its license term and was ultimately deorbited in 2018.[20] Extending the license term to fifteen years will streamline the Part 25 rules by making satellite license terms consistent. It will also decrease the regulatory burden on both applicants and the Commission by allowing DBS operators to operate for a full fifteen years without the need to file for a license extension or a replacement satellite after ten years.

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[16] NPRM ¶ 14.

[17] *Id.* ¶¶ 13-14.

[18] *Id.* ¶¶ 18-19.

[19] EchoStar 2006 Comments at 15.

[20] *EchoStar Satellite Operating Corp.*, Order and Authorization, 30 FCC Rcd 4452 (IB 2015).

E. The Streamlined Milestone Rules Should Be Extended to DBS Authorizations and Grants of U.S. Market Access but the Commission Should Consider Alternatives to Surety Bonds

The Commission should extend to DBS space stations its existing milestone rules for GSO space stations under Section 25.164(a) and should eliminate the existing due diligence requirement.[21] The milestone rules for GSOs have been significantly streamlined since this proceeding commenced in 2006 and now require launch within five years of the grant of a license without the imposition of interim milestones.[22] Consistent with the Commission's effort to align the regulation of DBS operations with those of GSO FSS, the Commission should eliminate the due diligence rule currently imposed on DBS systems in favor of the existing GSO milestone rules.

The Commenters continue to oppose the requirement that DBS operators and other satellite operators post surety bonds to prevent spectrum warehousing.[23] Although the existing Section 25.165 escalating bond requirement is preferable to the bond regime it replaced, using surety bonds remains problematic because of the administrative burdens they pose in the form of fees that satellite licensees must pay to maintain bonds for their satellite licenses.[24] The Commission should instead allow DBS operators the option of using either the existing escalating bond requirement or a corporate guarantee. Using the corporate guarantee approach, a corporation, usually the satellite licensee's parent corporation would agree to be held accountable for the duties of the licensee. In the event that the licensee does not meet its milestone obligations under Section 25.164(a), the corporate guarantor would be obligated to pay

[21] NPRM ¶ 17.

[22] 47 C.F.R. § 25.164(a).

[23] Comments of EchoStar and Hughes Network Systems, LLC, IB Docket No. 12-267, at 29 (Jan. 29, 2015) ("EchoStar 2015 Comments").

[24] *Id.*

the amount owed. The corporate guarantee approach would reduce costs that satellite licensees currently incur in maintaining bonds and free up capital for more productive uses.

F. The Two-Step FCC/ITU License Application Process Should be Extended to DBS Systems

The Commission should extend the optional two-step FCC/ITU application process to DBS systems.[25] This reform works to the extent that the Commission adopts its proposal to authorize DBS systems on a first-come, first-served basis. Allowing applicants for DBS systems to file using the two-step process will enable applicants to initiate the process of obtaining an ITU filing before they file complete applications with the FCC. This will increase certainty of ITU date priority for proposed DBS networks and improve the ability of U.S. operators to coordinate internationally.

The Commission should also review proposed Appendix 30 and 30A filings prior to submission to the ITU to ensure compatibility with existing U.S. filings.[26] This compatibility analysis should include a requirement that the applicant of a proposed DBS system submit to the commission an MSPACE analysis showing that its operations will not affect those of any other existing U.S. filing with an orbital separation of less than 9 degrees. Where the MSPACE analysis indicates an interference issue with an operational U.S. system, the filing should not be transmitted to the ITU unless the applicant provides a signed letter of consent from any affected operator of an operational DBS system.

DBS applicants under the two-step process should also submit the applicable application fee with their application, but without the application-stage bond requirement.[27] To the extent that the Commission continues to require an application stage bond, as discussed above,

[25] NPRM ¶ 21.

[26] *Id.* ¶ 22.

[27] *See* EchoStar 2015 Comments at 21-23.

applicants should be permitted to file a corporate guarantee in lieu of the bond.[28] Any application-stage bond should also be set at a comparable level to the application-stage bond for other satellite services.

G. The Commission Should Apply First-Come, First-Served Rules to Non-U.S.-Licensed DBS Satellite Systems

The Commission should also apply the first-come, first-served license processing framework to operators of non-U.S.-licensed DBS satellites seeking access to the U.S. market.[29] Consistent with the Commission's proposal, the *DISCO II* framework should continue to apply.[30] Only those non-U.S.-licensed DBS operators that can demonstrate that U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services in the country in which the non-U.S. space station is licensed and in all countries in which communications with the U.S. earth station will originate or terminate should be permitted to provide service in the United States.[31]

The Commission should also revise its current practice of deferring the processing of a request for U.S. market access for a DBS satellite deemed mutually exclusive with a prior U.S. application filing.[32] Rather, the Commission should act on U.S. market access requests for DBS operations that comply with the Commission's rules as they are filed, regardless of prior U.S. application filings for similar spectrum and orbital locations.[33] The Commission's existing

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[28] *See supra* 7.

[29] NPRM ¶¶ 23-24.

[30] *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States*, Report and Order, 12 FCC Rcd 24094 (1997) ("*DISCO II*").

[31] *Id.*

[32] NPRM ¶ 24, n.58.

[33] Comments of EchoStar and Hughes Network Systems, LLC, IB Docket No. 12-267 at 1-2 (Nov. 18, 2016).

practice is not in the public interest because it hinders international coordination. Instead, the U.S. should adhere to international coordination procedures and require U.S. licensees to coordinate with non-U.S. satellite networks.

III. THE COMMISSION SHOULD APPLY PART 25 RULES FOR TO "TWEENER" DBS APPLICANTS PROVIDED THEY CONDUCT APPROPRIATE INTERFERENCE ANALYSIS

The Commission should consider requests for new DBS service via space stations at orbital locations less than nine degrees apart, known as "tweeners,"[34] subject to certain conditions. EchoStar has previously argued that tweener DBS satellites should not be authorized because of the significant risk of interference high-power tweener systems would pose to incumbent DBS operations.[35] As EchoStar explained, even if operational restrictions were adopted to protect incumbent operators, the resulting tweener operations would be so technically constrained that they would be unable to add substantial usable DBS capacity, provide new services, or provide economically viable services to DBS subscribers.[36] With the passage of time and technological changes, it is now possible to authorize tweeners by using a two-stage process to establish the compatibility of proposed tweener systems with incumbent DBS operators. The Commission can achieve this goal, however, only by imposing the following two conditions on any tweener application:

1. Tweener applicants should be required to conduct an MSPACE analysis to demonstrate that the new system is technically compatible with existing DBS systems and will not affect existing DBS operations. The Commission should require a tweener applicant to confirm the results of its MSPACE analysis in its application.

2. If the MSPACE analysis indicates that an incumbent DBS operator at an orbital location within 9 degrees of the tweener system will be affected by the tweener operations, the tweener applicant should be required to coordinate with and obtain the consent of any

[34] NPRM ¶¶ 25-32.

[35] *See* EchoStar 2006 Comments at 5-9.

[36] *Id.* at 6-7.

affected incumbent DBS operators prior to deploying. While the Commission suggests that tweeners would be required to "coordinate" proposed operations with other U.S. DBS operators,[37] an explicit requirement that tweeners require the written consent of DBS operators will ensure that incumbents have a meaningful ability to prevent the deployment of tweeners that pose a risk of interference to existing DBS operations.

A. The Commission Should Protect MVDDS Licensees From Interference Caused by Tweener DBS Operations

The Commission should protect MVDDS licensees in the 12.2-12.7 GHz band from interference caused by tweener operations. MVDDS is authorized on a co-primary, non-interference basis with respect to DBS operators.[38] Since MVDDS spectrum was auctioned in 2004, MVDDS licensees, including DISH,[39] have worked to put the 12.2-12.7 GHz spectrum to use while contending with technical and operational limitations due to the stringent interference protections designed to prevent MVDDS from interfering with DBS operators at planned orbital locations.[40] The addition of tweener DBS operations would increase the aggregate interference in the 12.2-12.7 GHz band and further complicate the deployment of MVDDS. As a result, the Commission should not find that MVDDS protection of DBS under Part 101.1440 applies to DBS operations at locations that are not assigned to the United States in the Region 2 Plan.[41] Instead, the Commission should require DBS operators seeking to operate tweener locations to not cause interference to and coordinate with existing MVDDS licensees. This would enable DBS operators to expand their service to new orbital locations while not constraining the development of MVDDS operations.

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[37] NPRM ¶ 29.

[38] 47 C.F.R. § 2.106, n.5.490.

[39] DISH holds MVDDS licenses in 82 out of 214 geographical license areas.

[40] *See, e.g.* MVDDS Coalition, Petition for Rulemaking, RM-11768, at 5-6 (Apr. 26, 2016).

[41] 47 C.F.R. § 101.1440. *See also Amendment of the Commission's Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service*, Notice of Proposed Rulemaking, 21 FCC Rcd 9443, 9465 ¶ 54 (2006).

B. The Commission Should Use ITU Criteria to Determine Compatibility Between Two U.S. DBS ITU Filings

Additionally, the Commission notes that ITU Appendix 30 and 30A ITU rules do not govern the relationship between two DBS systems operating under U.S. ITU filings, but appropriately proposes to nevertheless employ the same ITU criteria to determine compatibility between two U.S. DBS ITU filings. In particular, this approach would allow the review of all new DBS applications with respect to a DBS system that has already been authorized by the ITU or already in the processing queue.[42] Relying on the ITU compatibility standards will help create certainty both for incumbent DBS operators and tweener DBS operators. As noted above, the Commission should seek comment as part of this proceeding on an appropriate aggregate interference limit in order to protect incumbent services including DBS and MVDDS.

IV. CONCLUSION

Based upon the foregoing, the Commission should extend existing Part 25 Rules that apply to GSO operations to DBS, with certain exceptions including the application of a surety bond requirement. In particular, the Commission should:

- Extend DBS licenses to a fifteen year term
- Allow non-U.S. DBS operators to apply to serve the U.S. market as long as they comply with the relevant Part 25 rules
- Extend the optional two-step FCC/ITU license application process to DBS systems
- Extend Part 25 rules to tweener DBS applicants provided that the applicants conduct an MSPACE analysis and coordinate with and obtain the consent of

[42] NPRM ¶ 31.

existing DBS operators at planned orbital slots and do not interfere with MVDDS licensees in the band

- Use Appendix 30 and 30A ITU criteria to determine compatibility between two U.S. DBS ITU filings
- Seek comment in this proceeding on adopting an aggregate interference limit to protect operational DBS systems and MVDDS licensees

The Commission should adopt these proposals to update the DBS rules in order to reflect the current state of DBS operations and the evolution of the Part 25 rules.

Respectfully submitted,

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